

## CLAIMS

What is claimed is:

*Sects A1*

1        1. A method comprising:  
2                 identifying a bitrate template associated with multimedia content; and  
3                 transmitting said multimedia content at a particular bitrate to a  
4                 multimedia node, said particular bitrate based on bitrate data in said bitrate  
5                 template.

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1        2. The method as in claim 1 wherein identifying comprises:  
2                 locating said bitrate template in a database using multimedia content  
3                 identification data.

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1        3. The method as in claim 2 wherein said identification data is a serial  
2                 number associated with said multimedia content.

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1        4. The method as in claim 2 wherein said identification data is a  
2                 checksum of a known unique portion of said multimedia content.

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1        5. The method as in claim 2 wherein said database is maintained on a  
2                 remote server.

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1        6. The method as in claim 1 further comprising:  
2                 filling an input buffer at said multimedia node by a particular amount in  
3                 anticipation of a bitrate spike indicated in said bitrate template.

1        7. The method as in claim 6 wherein filling said input buffer comprises  
2 increasing said particular bitrate to a second, higher bitrate.

1        8. A method for providing efficient bandwidth allocation on a  
2 bandwidth-limited network comprising:

3            receiving a request for multimedia content from a first multimedia node;  
4            allocating a first amount of bandwidth to supply said multimedia content  
5 to said multimedia node; and

6            dynamically adjusting said first amount of bandwidth based on a template  
7 of bitrate data indicating changes in bitrate requirements of said multimedia  
8 content.

1        9. The method as in claim 8 wherein said template is retrieved from a  
2 bitrate database.

1        10. The method as in claim 9 wherein said template is identified in said  
2 template database using identification data associated with said multimedia  
3 content.

1        11. The method as in claim 10 wherein said identification data is a serial  
2 number associated with said multimedia content.

1        12. The method as in claim 8 further comprising:  
2            dynamically adjusting said first amount of bandwidth based on a template  
3 of bitrate data indicating changes in bitrate requirements of multimedia content  
4 requested by a second multimedia node.

1           13. The method as in claim 8 wherein said multimedia content is a digital  
2 video disk ("DVD").

1           14. The method as in claim 8 wherein said first amount of bandwidth is  
2 dynamically adjusted upward to fill a buffer at said first multimedia node by a  
3 particular amount in anticipation of an increase in bitrate requirements for said  
4 multimedia content.

1           15. The method as in claim 12 wherein said first amount of bandwidth is  
2 dynamically adjusted upward to fill a buffer at said first multimedia node by a  
3 particular amount in anticipation of an increase in bitrate requirements for  
4 multimedia content transmitted to said second multimedia node.

1           16. The method as in claim 8 wherein said first amount of bandwidth is  
2 maintained until a buffer at said first multimedia node is filled with said  
3 multimedia content.

1           17. The method as in claim 16 wherein said first amount of bandwidth is  
2 maintained until another multimedia node requires additional bandwidth.

1           18. A system comprising:  
2           home media server configured to allocate a first amount of bandwidth to  
3 supply multimedia content to a first multimedia node and to dynamically adjust  
4 said first amount of bandwidth based on a template of bitrate data indicating  
5 changes in bitrate requirements of multimedia content.

1       19. The system as in claim 18 wherein said home media server retrieves  
2       said template based on identification data associated with said multimedia  
3       content.

1       1       20. The system as in claim 19 wherein said identification data is a serial  
2       number associated with said multimedia content.

1       A'1       21. The system as in claim 18 wherein said home media server is further  
3       configured to:

3       3       4       5       dynamically adjust said first amount of bandwidth based on a template of  
bitrate data indicating changes in bitrate requirements of multimedia content  
requested by a second multimedia node.

1       1       22. The system as in claim 18 wherein said multimedia content is a digital  
2       video disk ("DVD").

1       1       23. The system as in claim 18 wherein said home media server is further  
2       configured to dynamically adjust said first amount of bandwidth upward to fill a  
3       buffer at said first multimedia node by a particular amount in anticipation of an  
4       increase in bitrate requirements for said multimedia content.

1       1       24. The system as in claim 18 wherein said home media server is further  
2       configured to dynamically adjust said first amount of bandwidth upward to fill a  
3       buffer at said first multimedia node by a particular amount in anticipation of an  
4       increase in bitrate requirements for multimedia content transmitted to a second  
5       multimedia node.

1       25. The system as in claim 18 wherein said home media server is further  
2 configured to maintain said first amount of bandwidth until a buffer at said first  
3 multimedia node is filled with said multimedia content.

1       26. The system as in claim 18 wherein said home media server is further  
2 configured to maintain said first amount of bandwidth until another multimedia  
3 node requires additional bandwidth.

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